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MEMO TO : All Portable Gauge Licensees

FROM : Terry L. O'Clair, P.E.
Director
Division of Air Quality

RE : Information Notice 04-19-05: "Increased Security for Portable Gauges"

DATE : April 19, 2005

Enclosed is a copy of North Dakota Department of Health Radiation Control Program Information Notice 04-19-05: "Increased Security for Portable Gauges". This information notice was issued to inform licensees about new security requirements for portable gauges in NRC jurisdiction as described in 10 CFR Part 20.

It is expected that you will review this information for applicability to your licensed activities and consider actions, as appropriate, to ensure the safe and legal use of radioactive materials.

This notice is for your information only. No written response is required. If you have any questions concerning this issue, please contact the Radiation Control Program at 701.328.5188.

TLO/JMG:csc
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North Dakota Department of Health
Radiation Control Program

Information Notice 04-19-05: Increased Security for Portable Gauges

Summary

The U.S. Nuclear Regulatory Commission (NRC) amended its regulations to increase security requirements for portable gauges that require a specific license. The new rule requires all portable gauge licensees to provide a minimum of two independent physical controls to secure portable gauges from unauthorized removal whenever the portable gauges are not under the control and constant surveillance of the licensee's authorized users.

In 10 CFR Part 30, Sec. 30.34, paragraph (i) is added to the rule and reads as follows:

> (i) Security requirements for portable gauges – Each portable gauge licensee shall use a minimum of two independent physical controls that form tangible barriers to secure portable gauges from unauthorized removal, whenever portable gauges are not under the control and constant surveillance of the licensee.

This rule was developed to enhance the current level of security and control for portable gauges by reducing opportunities for theft. NRC staff expects that the physical controls used by the licensees to form tangible barriers will be designed and constructed of material suitable for securing gauges in such a way that they would require a more determined effort to remove the gauge.

The effective date of this final rule in NRC jurisdiction is July 11, 2005. For further information, please contact: Lydia Chang, Office of Nuclear Materials Safety and Safeguards, U.S. Nuclear Regulatory Commission, at 301.415.6319 (lwc1@nrc.gov). After the final NRC regulations become effective, North Dakota and the other Agreement States will be required to adopt similar security regulations to maintain compatibility with the NRC.

Examples of the "two independent physical controls" to secure portable gauges in various situations are described below.

Securing a Portable Gauge at a Licensed Facility

Long term storage of a portable gauge is usually at a permanent facility listed in the license or license application. Routine storage of a portable gauge in a vehicle or at temporary or permanent residential quarters is not normal but may be authorized by the NRC or an Agreement State during the licensing process. Under the new regulation, when a portable gauge is stored at a licensed facility, the licensee is specifically required to use a minimum of two independent physical controls to secure the gauge. Examples of two independent physical controls to secure a portable gauge when stored at a licensed facility are:

1. The portable gauge or transportation case containing the portable gauge is stored inside a locked storage shed within a secured outdoor area, such as a fenced parking area with a locked gate;
2. The portable gauge or transportation case containing the portable gauge is stored in a room with a locked door within a secured building for which the licensee controls access by lock and key or by a security guard;
3. The portable gauge or transportation case containing the portable gauge is stored inside a locked, non-portable cabinet inside a room with a locked door if the building is not secured;

4. The portable gauge or transportation case containing the portable gauge is stored in a separate secured area inside a secured mini-warehouse or storage facility; or

5. The portable gauge or transportation case containing the portable gauge is physically secured to the inside structure of a secured mini-warehouse or storage facility.

Securing a Portable Gauge in a Vehicle

Licensees commonly use a chain and a padlock to secure a portable gauge in its transportation case to the open bed of a pickup truck while using the vehicle for storage. Because the transportation case is portable, a theft could occur if the chain is cut and the transportation case with the portable gauge in it is taken.

If the licensee simply loops the chain through the handles of the transportation case, a thief could open the transportation case and take the portable gauge without removing the chain or the case. Because the transportation case is also portable, it must be protected by two independent physical controls if the portable gauge is inside. Just having a lock on the transportation case or a lock on the portable gauge source rod handle is not sufficient under the new requirements because the case and the gauge are portable.

A vehicle should be used for storage only for short periods of time when a gauge is in transit. A portable gauge should only be kept in a vehicle overnight if it is not practicable to provide temporary storage in a permanent structure. Under the new regulation, when a portable gauge is being stored in a vehicle, the licensee is specifically required to use a minimum of two independent physical controls to secure the gauge. Examples of two such independent physical controls to secure portable gauges in these situations are:

1. The locked transportation case containing the portable gauge is physically secured to a vehicle with brackets, and a chain or steel cable (attached to the vehicle) is wrapped around the transportation case such that the case can not be opened unless the chain or cable is removed. In this example, the locked transportation case would count as one control because the brackets would prevent easy removal of the case. The chain or cable looped only through the transportation case handle is not acceptable;

2. The portable gauge or transportation case containing the portable gauge is stored in a box physically attached to a vehicle, and the box is secured with (1) two independent locks; (2) two separate chains or steel cables attached independently to the vehicle in such a manner that the box cannot be opened without the removal of the chains or cables; or (3) one lock and one chain or steel cable is attached to the vehicle in such a manner that the box cannot be opened without the removal of the chain or cable; or

3. The portable gauge or transportation case containing the portable gauge is stored in a locked trunk, camper shell, van, or other similar enclosure and is physically secured to the vehicle by a chain or steel cable in such a manner that one would not be able to open the case or remove the portable gauge without removal of the chain or cable. In this example, the transportation case would not count as one control because it could be easily removed.

Securing a Portable Gauge at a Temporary Jobsite or at Locations Other Than a Licensed Facility

When a job requires storage of a portable gauge at a temporary jobsite or at a location other than a licensed facility, the licensee should use a permanent structure for storage if practicable to do so. When storing a portable gauge in temporary or permanent residential quarters, the licensee should limit access by storing the gauge in a separate room away from residents and other members of the public. The licensee must also meet the radiation exposure limits specified in 10 CFR Part 20 (or the equivalent state regulations).

Under the new security regulation, when a portable gauge is stored at a temporary jobsite or at a location other than an authorized facility, the licensee would also be required to use a minimum of two independent physical controls to secure the gauge. Examples of two independent physical controls to secure portable gauges at these locations are:

1. At a temporary job site, the portable gauge or transportation case containing the portable gauge is stored inside a locked building or in a locked non-portable structure (e.g., construction trailer, sealand container, etc.), and is physically secured by a chain or steel cable to a non-portable structure in such a manner that an individual would not be able to open the transportation case or remove the portable gauge without removing the chain or cable. A lock on the transportation case or a lock on the portable gauge source rod handle would not be sufficient because the case and the gauge are portable;

2. The portable gauge or transportation case containing the portable gauge is stored inside a locked room within temporary or permanent residential quarters, and is physically secured by a chain or steel cable to a permanent or non-portable structure (e.g., large metal drain pipe, support column, etc.) such that an individual would not be able to open the transportation case or remove the portable gauge without removing the chain or cable;

3. The portable gauge or transportation case containing the portable gauge is stored in a locked garage, and is within a locked vehicle or is physically secured by a chain or steel cable to the vehicle in such a manner that an individual would not be able to open the transportation case or remove the portable gauge without removing the chain or cable; or

4. The portable gauge or transportation case containing the portable gauge is stored in a locked garage, and is within a locked enclosure or is physically secured by a chain or steel cable to a permanent or non-portable structure in such a manner that an individual would not be able to open the transportation case or remove the portable gauge without removing the chain or cable.

Controlling and Maintaining Constant Surveillance of a Portable Gauge

Under the new regulation, when a portable gauge is not secured with a minimum of two independent physical controls, the licensee would be required to control and maintain constant surveillance of the gauge. This new rule more specifically addresses the current requirements in 10 CFR 20.1801 for security, and satisfies the requirements of 10 CFR 20.1802, which states that the licensee shall control and maintain constant surveillance of licensed material that is in a controlled or unrestricted area and that is not in storage. Control and constant surveillance is required when the gauge is not in storage, e.g., is in use or undergoing maintenance. The NRC staff interprets "control and maintain constant surveillance" of portable gauges to mean being immediately present or remaining in close proximity to the portable gauge so as to be able to prevent unauthorized removal of the gauge.